

इंटरनेट

मानक

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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 8802 (1987): Ferrules for oil hydraulic couplings [PGD
17: Fluid Power Fittings, Hoses and Hose Assemblies]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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Indian Standard

SPECIFICATION FOR
FERRULES FOR OIL HYDRAULIC COUPLINGS

(First Revision)

2005

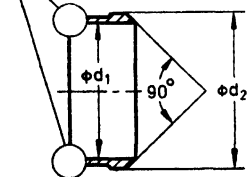
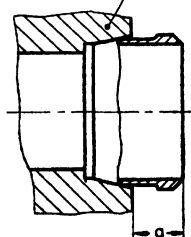
1. **Scope** — Specifies the dimensions, material and other requirements for ferrules for use in oil-hydraulic systems.

2. **Dimensions** — Shall be as given in Table 1

TABLE 1 DIMENSIONS FOR FERRULE

All dimensions in millimetres

NB

SEALING EDGE DETAILS
SEE TABLE 2TUBE END TO
IS 8805 (Part 1)ASSEMBLY IN
UNTIGHTENED CONDITION

Series	Nominal Pressure MPa	Outside Diameter of Tube	a		d ₁		d ₂	
			Min	Max	Nom	Tol		
Light (L)	10	4	3.5	4.5	4	B11	5.5	
		6	5	6	6		9	
		8	5	6	8		11	
	25	10	5	6.5	10		13	
		12	5	6.5	12		15	
		15	5	6.5	15		18	
		18	5.5	7	10		21	
	16	22	6	8	22		25	
		28	6	8	20		31	
		10	35	7	9		35.3	+0.1
	42		7	9	42.3		0	47
	Heavy (H)		6	5	6.5		6	B11
		8	5	6.5	8		11	
		10	5	6.5	10		13	
		12	5	6.5	12		15	
14		5	6.5	14	17			
16		5	6.5	16	19			
40		20	6.5	8.5	20	24		
		25	6.5	8.5	25	29		
		30	7	9	30			
25		30	7.5	9				

Adopted 6 May 1987

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NEW DELHI 110002

IS : 8802 - 1987

3. Material — The material and heat treatment of the ferrule shall be such that it has adequate tensile strength and toughness to bite on to the tube without showing any signs of failure. The exact specification of the material is left to the manufacturer. However, guidelines for the selection of the material to details of the sealing edge are given in Appendix A for information only

4. Surface Protection — Ferrule shall be zinc plated FeZn5 to IS 1573-1970 'Electroplated coatings of zinc on iron and steel (*first revision*)', against corrosion or cadmium plated to Cd8 of IS 1572-1968 'Electroplated coatings of cadmium on iron and steel (*first revision*)'

5. General Requirement — For details not covered in this standard, reference shall be made to IS 8805 (Part 1)-1970 'General requirements for ferrule type couplings used in oil-hydraulic systems Part 1 General'

6. Designation — A ferrule of light series (L) for outside diameter of tube 6 mm shall be designated as

Ferrule L6 IS 8802

7. Certification Marking — Details available with the Bureau of Indian Standards

APPENDIX A

(Clause 3)

DETAILS OF MATERIAL AND SEALING EDGE OF FERRULES

A-1. Material — Ferrule shall be made from steel 15C8 conforming to IS 1570 (Part 2)-1979 'Schedules for wrought steels for general engineering purposes Part 2 Carbon steels (unalloyed steels) (*first revision*)' After suitable heat treatment, the ferrule shall satisfy the mechanical properties given in A-3

A-2. Form and Dimensions — Shall be as given in Table 2

A-3. Mechanical Properties

A-3.1 Surface Hardness — Surface hardness of ferrule in HV 0.5 kg shall be in the range of 500 to 650 HV [see IS 1501 (Part-1)-1984 Method for Vickers hardness test for metallic materials Part 1 HV 5 to HV 100 (*second revision*)]

A-3.2 Case Depth — Ferrule shall be case hardened to a depth of 20 to 30 μm (see IS 6416-1971 Methods for measuring case depth of steels)

A-3.3 Core Hardness — Shall be in the range of 179 to 266 HV [see IS 1501 (Part 1)-1984]

EXPLANATORY NOTE

This standard was first published in 1978. In the present revision, following changes have been made:

- Nominal pressure corresponding to light and heavy series have been included,
- Dimensions of heavy series ferrules have also been included in Appendix A, and
- Form, dimensions, material and heat treatment of sealing edge have been standardized in line with commonly used manufacturing practices

In the preparation of this standard, considerable assistance has been derived from DIN 3861-1982 'Non soldering compression fittings, taper bush design and type of port end W', issued by Deutsches Institut für Normung (DIN).

AMENDMENT NO. 1 JUNE 1991
TO
IS 8802 : 1987 SPECIFICATION FOR
FERRULES FOR OIL HYDRAULIC COUPLINGS
(First Revision)

(Page 3, Table 2) — Substitute ' d_1 ' for ' d ' and ' d ' for ' d_1 '.

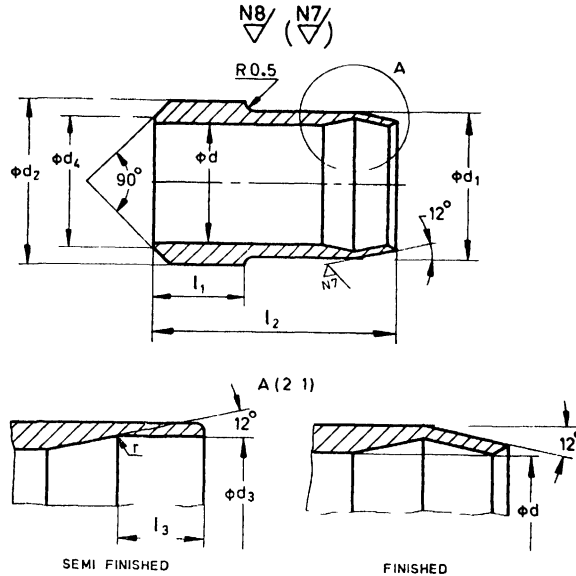
(PED 17)

Reprography Unit, BIS, New Delhi, India

TABLE 2 DETAIL OF SEALING EDGE OF FERRULE

(Clause A 2)

All dimensions in millimetres



Series	Outside Diameter of Tube	d 0 2 0	d_1		d_2	d_3 0 -0 1	d_4	l_1 0 2 0	l_2 +0 3 0	l_3	r
			Nom	Tol							
Light (L)	4	4.9	4		5.5	4.5	4.4	3	6	14	0.6
	6	7.8	6		9	6.6	7	3.5	8.5	15	0.6
	8	9.8	8		11	8.6	9	3.5	8.5	15	0.6
	10	12	10		13	10.6	11	3.8	9	15	0.6
	12	14	12		15	12.6	13	3.8	9.5	15	0.6
	15	17	15		18	15.6	16	3.8	9.5	16	0.6
	18	20	18		21	18.6	19	4	10	16	0.8
	22	24	22		25	22.6	23	4	10.5	16	0.8
	28	30.2	28		31	28.6	29	4	10.5	16	0.8
	35	37.6	35.3	+0.1	40	35.6	30	4.5	12	16	0.8
	42	44.6	42.3	0	47	42.6	45	4.5	12	16	0.8
Heavy (H)	6	7.8	6		9	6.6	7	3.5	9	15	0.6
	8	9.8	8		11	8.6	9	3.5	9	15	0.6
	10	12	10		13	10.6	11	3.5	9	15	0.6
	12	14	12		15	12.6	13	3.5	9.5	15	0.6
	14	16	14		17	14.8	15	4	9.5	18	0.6
	16	18	16		19	17.8	17	4	9.5	18	0.6
	20	22.5	20		24	20.8	21	4	10.5	18	0.8
	25	27.5	25		29	25.8	26	5	10.5	18	0.8
	30	32.6	30		35	30.8	32	5	11.5	20	0.8
	30	40.6	30.3	+0.1	43	38.8	41	5	12	25	0.8

Note 1 — The 12° angle of the finished form is to be formed by pressing suitably to a state where the diameter is as given in the table is maintained. The finished form could also be produced by machine tooling at the choice of the manufacturer.

Note 2 — For sizes 6, 8, 10 and 12 mm of light and heavy series, the

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TO
IS 8802 : 1987 SPECIFICATION FOR FERRULES FOR
OIL HYDRAULIC COUPLINGS

(First Revision)

(*Page 1, Table 1*) — Substitute 18 *for* 10, under d_1 against 18 Outside Diameter of Tube.

(PE 17)

Reprography Unit, BIS, New Delhi, India